



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,464	10/01/2003	Benjamin Chu	239709US23	5537
22850 7590 01/16/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER TENTONI, LEO B	
			ART UNIT 1791	PAPER NUMBER
			NOTIFICATION DATE 01/16/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/674,464

Applicant(s)

CHU ET AL.

Examiner

Leo B. Tentoni

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 18-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 18-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-14 and 18-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reneker (U.S. Patent 6,695,992 B2) in

combination with Gravett et al (U.S. Patent Application Publication 2004/0146546 A1) for the reasons of record.

4. Claims 1-14 and 18-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al (U.S. Patent Application Publication 2005/0067732 A1) in combination with Gravett et al (U.S. Patent Application Publication 2004/0146546 A1) for the reasons of record.

Response to Arguments

5. Applicant's arguments filed on 30 October 2007 have been fully considered but they are not persuasive.

6. Applicant argues (page 7) that Reneker does not teach the aspect of a gas jet orifice that is substantially concentrically arranged around a spinneret. Examiner responds that Reneker does teach this aspect (see, for example, Figure 2 of Reneker).

7. Applicant argues (page 7) that the examiner's reliance on Gravett et al as disclosing the preparation of hyaluronan is misplaced because it is well known in the art that hyaluronan is notoriously difficult to spin in high throughput. Examiner responds that this argument is not commensurate in scope with the instant claims because none of the instant claims positively recite any amount (or range of amounts) of throughput.

Furthermore, Gravett et al teaches making hyaluronan fibers by

standard melt-processing techniques, including electrospinning and melt-blowing (see, for example, paragraph [0116] of Gravett et al).

8. Applicant argues (pages 7 and 8) that Gravett et al does not address the spinning of nanofibers. Examiner responds that this argument is not commensurate in scope with independent claim 1 because independent claim 1 does not positively recite "nanofibers" and also does not positively recite any fiber size. Also, Gravett et al teaches that fibers having appropriate dimensions may be made using standard melt-processing techniques (see, for example, paragraph [0116] of Gravett et al) and thus, Gravett et al is inclusive of a range of fiber sizes, including nanofibers. Furthermore, both Reneker and Kim et al are directed to the manufacture of nanofibers.

9. Applicant argues (page 8) that one of ordinary skill in the art would not be motivated to select hyaluronan or hyaluronan containing polymers from Gravett et al for use in either Reneker or Kim et al. Examiner responds that one of ordinary skill in the art would be motivated to select hyaluronan or hyaluronan containing polymers as taught by Gravett et al (note that Gravett et al teaches that fibers of hyaluronan or hyaluronan containing polymers having appropriate dimensions may be made

using standard melt-processing techniques (see, for example, paragraph [0116] of Gravett et al)) for use in the process of either Reneker or Kim et al in order to manufacture a desired product (e.g., fibers) from a biological polymer (note especially Reneker, at col. 3, lines 64-65, which teaches the use of biological polymers). Furthermore, the claimed subject matter would have been obvious to one of ordinary skill in the art at the time the invention was made because the substitution of one known material (i.e., hyaluronan, as taught by Gravett et al) for another known material (i.e., the polymers of Reneker and Kim et al) would have yielded predictable results (i.e., formation of hyaluronan polymer fibers) to one of ordinary skill in the art at the time the invention was made (KSR International Co. v. Teleflex Inc., 550 U.S. _____, 82 USPQ2d 1385 (2007)).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened

statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo B. Tentoni whose telephone number is (571) 272-1209. The examiner can normally be reached on Monday - Friday (6:30 A.M. - 3:00 P.M.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leo B. Tentoni

Leo B. Tentoni
Primary Examiner
Art Unit 1791

lbt